

Welcome to the lesson on using social media when discussing significant weather events. This is the last of four lessons in this module. If you have not gone through the first three lessons, please do so since this lesson builds upon the information already presented.



#### **Learning Objectives**

- Identify actions that should be taken before, during, and after a significant weather event.
- Identify the type of information that is best for Facebook and Twitter posts before, during, and after events.
- Identify best practices for inter-office and intra-office communication with respect to social media.
- Identify methods offices can use to communicate forecasted events and encourage public preparedness.
- Identify when a post could request shares and retweets.

This lesson will discuss communication strategies that should be used before, during, and after significant weather events. This will include strategies relating to Facebook and Twitter, for communications within an office and between offices, and for communications with the public. Scan over the learning objectives and click the play button when you are done to advance to the next slide.

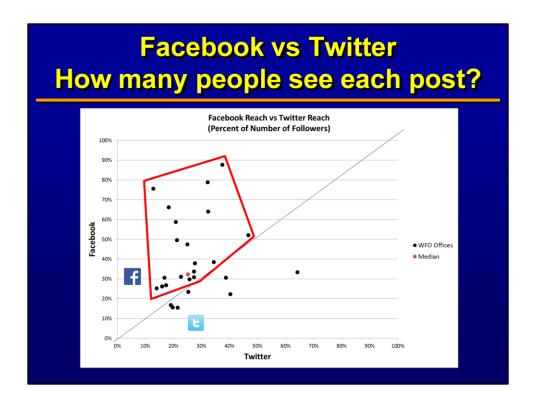
#### **Communications**

- During severe weather, social media needs to be tightly integrated into operations.
- Information flow should increase



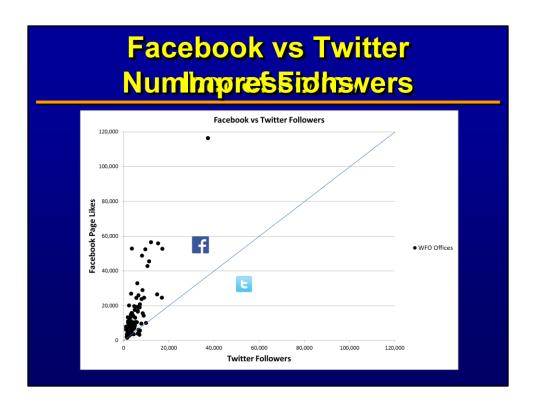


As discussed in the previous lesson, social media aids the National Weather Service's mission of communicating forecasts and warnings for the protection of life and property. The most critical time for this communication is before and during significant weather events. Thus, in the run-up to the event, communication on social media needs to increase from routine operations to communicate critical warning information and provide decision support to customers and the public. This increase in communication aids the availability of information to the public and allows them to gain a better perception of the impending hazard. But, it is important to develop a plan regarding the frequency and type of information you should post on each platform.

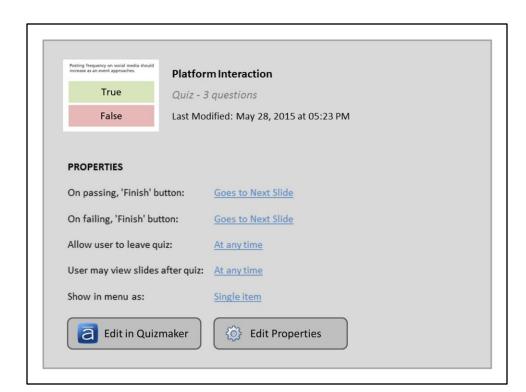


Continuing our examination of Facebook and Twitter's characteristics, we want to know how many people actually see your posts on each platform? The best way to determine this for a specific account is to use the analytics that each platform provides. Shown on the slide is a scatter plot showing the results of data collected from 26 forecast offices from August 2014. Data was collected on the median number of times each post showed up on a computer screen from particular offices, and the results were normalized by the number of followers of that office's account. [It is important to note that number of people see each post that are not followers of an office account, so the 100% on this chart is not the true maximum potential number of people who can see a post. Also, these data are from a particular month in the past. Facebook continues to change its algorithm, so the general picture given here may change in the future.]

We see here that, for most offices, more people saw posts [in proportion to the size of their following] produced on Facebook than on Twitter. Interestingly, there is no trend in this data when it is compared to the number of people following the account, the population of the office's warning area, or the number of times the office posts per day. Keep in mind that the number of people who see each post varies greatly by office, and you should use analytics for your office's accounts to determine what is best for your office.

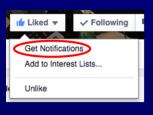


This chart shows the number of Facebook Page likes and Twitter followers for each forecast office at the beginning of August 2014. As shown in the previous lesson, most offices have more Facebook Page Likes than Twitter followers. The 26 offices represented on the previous slide are shown here. But this is the number of people who follow each account. Using the information from the previous slide, this is the number of people who see a typical post. While the numbers here are less than the number of followers, we do see that each point remains above the blue line. So, more people will generally see each Facebook post than Twitter post. This information is important to consider when creating a posting strategy for significant weather events in addition to the considerations of the platform characteristics and the expectations from the audience already discussed.



## Facebook Platform Considerations

- Use before event, updates, and after event.
- People don't expect a lot of posts in a short period of time.
  - Will likely not see post right away.
  - Exception: User can select "Get Notifications"

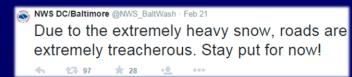


Because of the large reach of Facebook, it is an ideal platform for spreading the word about an upcoming significant event and how to prepare for it. During the event, people do not expect, and Facebook is not designed for, a lot of posts over a short period of time. So, it is not a great place to post information about individual warnings. But, updating the major weather trends at key times will keep followers informed and prevent time-sensitive information from reaching people after it is already out of date. For the same reasons that Facebook is a great platform for posting information before an event, it is great for sharing event summaries and damage reports after the event has concluded.

An important thing to keep in mind is that if people just like your page, they will be more likely to get your posts, but will likely not see all of them immediately when you post them. This is due to the algorithms Facebook uses to determine who sees what information, and when they see it. However, they can select the option "Get Notifications" to receive everything you post. That way they don't miss anything. You can encourage people to select this option when leading up to a significant weather event.

#### **Twitter Platform Considerations**

- Most advantages come during event.
- Tweets reach audience instantaneously.
- People expect possibility of a lot of posts in a short period of time.
- Reach can expand very quickly.
- Text limited to 140 characters.



Twitter is useful for reaching a wide audience quickly. Before and after a storm, posting a picture with key information is still very useful in either announcing and preparing for an event or summarizing impacts from an event that just ended. Where Twitter excels, though, is during a significant event, where you can reach everyone who is looking at their feed or searching for current weather simultaneously with each post. When using Twitter, people expect the possibility of receiving a lot of posts from the same users in a short period of time, so you can tweet as much information as it takes to effectively communicate the situation. In addition, as people retweet information, the reach of a particular post can expand beyond the users directly following your account very quickly. Because of Twitter's 140 character limit, you want to be as concise as possible, and it takes some practice to communicate the key information in such a small space.

#### **Intra-Office Considerations**

Before During After

- · Have a plan for communications.
- Devote one person to communications.
  - Perhaps staff one person just for social media.



We will now walk through the best practices for using social media before, during, and after a significant event. There is lots to do, especially prior to and during an event, so just like you want the public to have their plan you want to make sure you have a plan for these situations. A key part of your plan is how to handle the staffing for external communications. It is recommended to have one person cover at least all forms of external communications, including social media, NWS Chat, phone calls, etc. It may be necessary, depending on the preferences of your local public and customers (and the extremity of the weather), to staff one person over just social media communications.

#### **Making Templates**

Before During After

- Have message strategy in mind.
  - Who, what, when, where, why, how?
- Make/locate premade slides.
- Get SM Situational Awareness display ready.



No matter what you do, consistency in your communication will be important. Strategize for each event what message you want to communicate to the public and your customers. Make templates or even whole slides that you can quickly edit and send during the event knowing the situation will be changing quickly. Also, make sure your situational awareness display is set up for use during the event with the appropriate lists, tabs, and searches that you want to monitor.

#### **Inter-Office Considerations**

Before During After

Know strategies for inter-office communications.

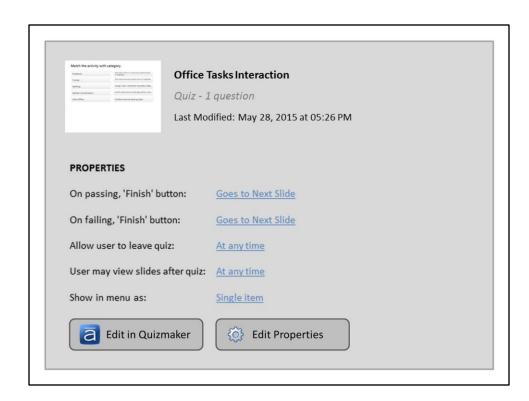


- Confirm plans for service backup
  - Communicate backup plans to partners.
  - Share templates, SM philosophy, message, hashtags.

Just as communication within your office is important, so is communication between you and neighboring offices. Prior to a significant event, communicate with neighboring offices what strategies you have for social media considering how the weather is expected to transition from one warning area to another. This helps to assure consistency in both warning and communication strategy. It is also important to confirm plans with your backup offices and to communicate those plans to your partners as necessary. To ensure consistency, share your templates, social media philosophy for the event, what messages you want to emphasize, and what hashtags you commonly use.

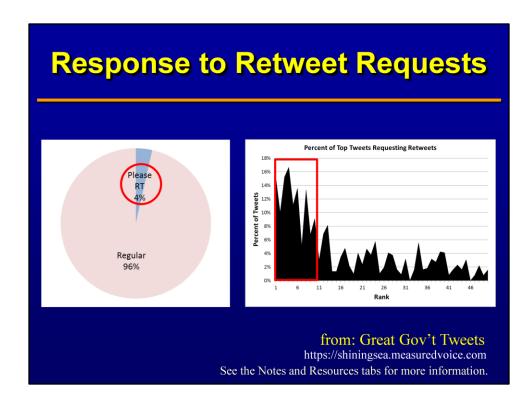
# Spotter Coordination Perfore During After If you have a VOST, #tSpotter, etc., let them know they'll be needed. Indicate what hashtags you will be using. NWS Appreciates your help! RT @oktwister: The @OKVOST is activated for svr #okwx ops. #VOST #Skywarn VOST – Virtual Operations Support Team

If you have an organization of designated spotters, such as a Virtual Operations Support Team program, employ something similar to Nashville's #tSpotter hashtag, or you use any other special social media tactics during significant weather events, you will need to communicate to those spotters that they will be needed. No matter what size of event occurs, make sure to always communicate what hashtags you use so people can receive your posts and make sure their posts get your attention.





An important way to assure the most important preparedness or warning information is shared to as many people as possible is to request people to share or retweet your post. This increases the awareness of the whole community of the upcoming event. An interesting analytical note is that spelling out the words "Please retweet" generally gets more interaction than using the common RT abbreviation for retweet. If you believe the situation does not require such a direct request, but still want to get the message out, then suggesting that the post is "good to share" or using other, less abrasive words and phrases, has been shown to be effective.



Using the data from the Great Government Tweets website as we did in previous lessons, we see that offices rightfully don't request retweets from their followers often and so very few "top tweets" include retweet requests. But the chart on the right shows that a high percentage of tweets that get the highest levels of interaction have included requests for retweets. The conclusion is that, though we don't request retweets unless the situation calls for it, people will take action and forward the information to their followers when you do request it.

[Website found at https://shiningsea.measuredvoice.com]

#### **Encourage Preparedness**

Before During After

#### Encourage people to have multiple warnings sources

- Local TV, AM/FM Radio
- Weather Radio
- Smartphone App
- Phone/Email service
- Community System
- Twitter/Facebook
- WEA Phone Alerts
- Sirens
- Family and Friends
- Looking out the window

#### Think about: What if you...

- Have no electricity?
- Have no internet?
- · Have no cell service?
- Have no TV signal?





As discussed in prior lessons, consistently communicating with the public between storms can help build trust between you and the public as well as increase their resiliency and reduce the emotional trauma caused by a significant weather event. Part of this communication is to aid the public with preparing for an event. While you may communicate preparedness information off and on during quiet weather, it is important to remind people of these preparedness tips when ramping up to a significant day.

Encourage people to have access to multiple sources that provide warnings. This includes access to traditional media, NOAA weather radio, phone access to use a weather app or make calls to friends and family, social media, and being able to interpret environmental weather cues.

You can also pose questions and make them think about what they will plan to do if they lose electricity, internet access, cell phone signal, or TV signal. Each of these is a provider of warning information, but can be lost during severe weather. Another question to ask is how they prepare for severe weather. The more people think about these situations and have their own plan for dealing with them, the better prepared they will be when an event occurs.

Remember that we are not trying to control people, but we are trying to help encourage them to think through what it will take to get to safety when it is needed. Hopefully, this preparedness will also increase their perceived self-efficacy and will increase their likelihood of taking positive actions to protect themselves, those around them, and their property.

## • Tell people what to prepare for rather than what meteorological events will happen. - Discuss impacts. - "Here is what you need 8/6/4 hours," or next few days. - Keep posts short but informative, without jargon. - Include some regional analysis for EMs.

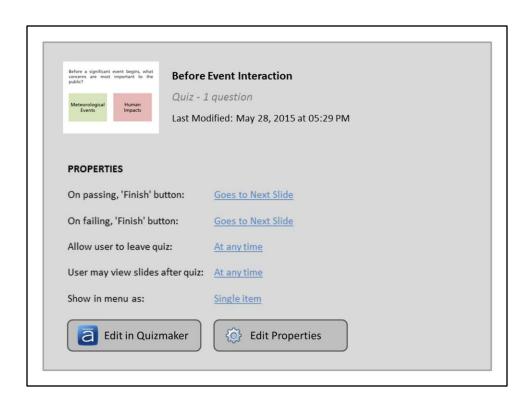
Beyond the general preparedness information presented in the last slide, people will want to know the details about how the event is forecast to unfold. Prior to an event, communicating the reasoning behind the your confidence (or lack of confidence) in your forecasts is important, but you also want to communicate what impacts the public should prepare for. When posting forecast maps, try to show regional views of the event so the public does not become confused by warning area borders they are unfamiliar with. For many events, informing the public about forecast offices and their warning areas are good to try and assure everyone will get the most relevant information for their area.

For the biggest events, it can be helpful to take the general preparedness information and, in the hours before the storm begins, guide people through the mental process of what they should think about or consider planning for over the next 8, or 6, or 4 hours. This is important because it can fill in the gaps between official watch and warning products that are issued. If an upcoming event appears to be well forecasted, begin noting potential impacts days in advance. This is vital for emergency managers and partners who have to make decisions days before an event. If an event is going to hit during rush hour, when schools let out, or during an event at a stadium or large venue, thinking through your preparedness that morning can help people react better to the event and make better safety decisions when the weather begins to effect their area.

As always, keep posts concise and free of jargon, but also containing the most important information. Keep the needs of your partners in mind during an event, as many like to have updates of regional weather analyses and the resulting impacts to aid their work.



Shown here is an example graphic that focuses on the impacts that can be expected when certain products are issued. Notice that the pictures and descriptions do not get bogged down with the requirements needed to issue each product, but cue the reader to begin thinking about what they should do if the product is issued. Of course, this is a general awareness graphic, and would need to be adjusted if it were to be used for a specific event.



#### **During Event: Priorities**

Before During After

- Increase the flow of outgoing information.
  - Incoming information will increase as well.
- Prioritize: NWS Chat → Twitter → Facebook.
- Use timestamps on all posts.



Once a significant weather event begins, the amount of outgoing information you provide should increase. Your partners and the public will need consistent updates on the event. With the increase in outgoing information will be an increase in incoming information from the public, especially as their trust in you increases. With the increasing frequency of communication, it will be important to prioritize what communication platforms are most important. As mentioned in the previous lesson, communication with partners on whatever platforms your office uses for that purpose remains most important. But concerning the public, many offices find that Twitter is the next most important platform during events because of its ability to deliver quick pieces of news instantaneously to a large audience. Facebook, on the other hand, is best used to update the regional situation as it changes during the event. To ensure people do not share outdated information, be sure to put a timestamp on all Facebook and Twitter posts during an event.

## **During Event: Decision Support**

Before During After

- Give decision support in tweets as needed.
  - "Seek shelter." "Please stay off roads."
- Include photos to help people internalize the
  - threat to them.
  - Warning polygon maps are



During a significant event, the biggest need of your customers is decision support. Include impact-based decision support in your Twitter posts as needed. Examples include "Seek shelter now," "Please stay off roads," "Look for rising water," "Make sure you attend to elderly and disabled friends and relatives," or "Please limit travel." A helpful suggestion is to include photos in as many posts as necessary to help people confirm and personalize the threat. Including pictures of maps with warning polygons are really helpful in communicating the threat location. You can even try to request people find their location on the map to make sure they know their spatiotemporal location relative to the threat and its trajectory.

#### **Solicit Reports**

Before During After

- Ask for reports, as needed.
- Share reports & other relevant information.
  - Confirm reports are accurate. Especially pictures.
  - Can't control what people report. But others assume what NWS forwards is legitimate.
- Use social media to control rumors, if necessary.

One of the most important benefits of social media from the warning perspective is the ability to receive reports of real-time conditions. These not only help verify current warnings, but increases your situational awareness overall and confidence in issuing future warnings. If you are not getting any reports and are not fully confident of the situation, feel free to ask for specific reports regarding a storm. These requests can increase the potential for people to let you know what they are seeing!

As stated already, it is very helpful to retweet or forward reports and pictures you receive to your followers of relevant storm information. Just make sure to quality control the images and reports you receive. If the picture is a fake and has been photoshopped or the provided location is incorrect, people will assume the information is accurate because you, the trusted source for credible information, shared it. Conversely, performing this quality control can help you spot and dispel rumors that are being spread on social media.

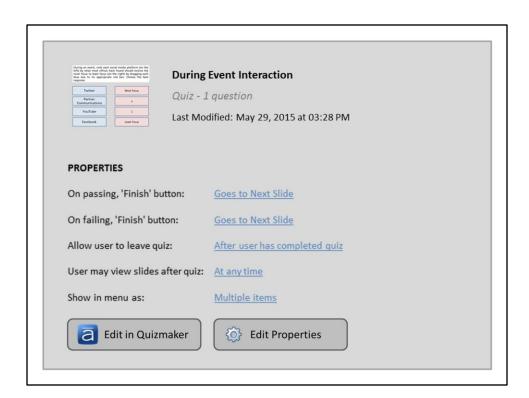
### **During Event: Considerations**

Before During After

- When busy, have a standard "too busy to answer everything" post ready.
- If you know an NHC / SPC update is coming, prepare your graphic, but don't release until they do.



During most significant events, the workload maximizes and it is very difficult to respond to specific questions or requests for information. It is important to have a standard message ready to quickly communicate that, although you attempt to answer as many questions as possible, you may not get to answer every question during the event. This will quell expectations from the public so they won't feel ignored. As an event progresses, if you know a national center such as the National Hurricane Center or Storm Prediction Center, is going to issue an updated forecast soon, it is a good time saver to begin to prepare your graphic ahead of the issuance of the product. However, don't release your graphic until that center has issued their product!



#### **After Event: Considerations**

Before During After

- Announcing damage reports helps EMs.
  - Can give event review or damage summary.
- Thank people for reports & spreading word.
  - Social Media is about interaction. Express value.

NWS Lincoln IL @NWSLincolnIL · 19 Nov 2013
7 tornadoes in Lincoln NWS service area from Sunday, Latest summary at ow.ly/qZTBQ, will continue to update this week. #ILwx

After an event, it is helpful to your customers and stakeholders to receive a summary of the event through damage surveys or damage reports across the area. Remember to thank people for the reports they sent in and for retweeting or sharing important information with their friends, family, and followers. Remember, social media works when it is an interaction between you and the public. Reciprocating their efforts by confirming their value helps to increase the level of trust from the public and your office will benefit from their cooperation in the future.

#### Before **How to Handle Mistakes** During After Have plan for missed forecasts or mistyped post. - Better to address blown forecast than ignore it. Take responsibility. NWS Boston 🧼 Follow @NWSBoston While today's forecast was far from perfect as these marginal events are always a tough call, we learn from it, gain experience, & move on 5:47 PM - 18 Jan 2014 47 15 ★ 9

Finally, although we try to be professional at all times, people make mistakes. Have a plan for handling a missed forecast or an erroneous post that was sent. Although we don't want to apologize for a forecast we issue, it is always better to address an unverified forecast or a mistyped post than to ignore it and hope it goes away. Take responsibility for your actions.

#### **Summary**

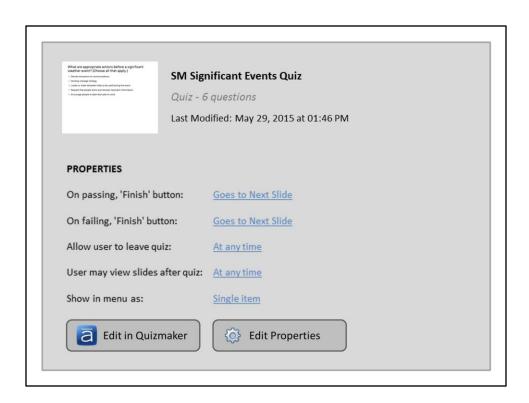
- Plan how to use each media platform.
- Before: know internal and external communications, guide public preparations.
- During: provide decision support, share photos and reports, use timestamps.
- After: summarize the event, thank public for reports.

In review, make sure you have a plan for handling the tasks associated with the communication of weather events of all magnitudes to the public on all media platforms.

When a significant event is in the forecast, communicate with those in your office, neighboring offices, and customers to discuss the plan for the event. Post information on how to prepare for the event and help guide the public through the preparation thought process so they can have the best chance at making quality decisions when the event threatens their location. These communications before the event should help an empowered public put their decision-making plans into action.

During the event, provide consistent, credible updates to the meteorological conditions and provide decision support. Share credible photographs and reports that you receive to help people confirm and personalize the event. Use timestamps to assure people know they are receiving up-to-the-minute information at all times.

After the event concludes, provide a summary of the event or a summary of damage reports to help those reacting to the event. Finally, remember to thank all those who provided reports during the event so they will be more likely to continue providing reports in future events.



Please complete this quiz to assess your learning of the material. When you have passed the quiz, click "finish" to move on with the course.

### LA-15-03: OGE Issues Legal Advisory on the Standards of Conduct and Social Media

- Use work time and property in an honest effort to perform official duties.
- Do not use your title, position, or authority associated with your office for private gain.
  - You may identify your title or position in a designated biographical information area.
  - You are encouraged to include a disclaimer clarifying that your communications reflect only your personal views and do not necessarily represent the views of your agency or the United States.
- If you are seeking employment through social media, you are still subject to regulations in the OGE Standards of Conduct and in Stop Trading on Congressional Knowledge Act of 2012
- You cannot disclose nonpublic information to further your private interest or the private interest of others.
- You cannot accept compensation for statements or communications made over social media that relate to your official duties.
- You may fundraise for nonprofit charitable organizations that complies with the Standards
  of Conduct in a personal capacity, but cannot solicit funds from a subordinate or other
  prohibited source or use your official title, position, or authority to further fundraising efforts.

Because many forecasters have their own private social media accounts, the Office of Government Ethics has published standards of conduct that are expected on social media. You are encouraged to read the document for the full details, but I will summarize the big themes here. You are expected to use work time and property as work time, and not abuse the use of social media. You cannot use your title, position, or authority associated with your job for private gain, but you may identify your position in the designated biographical information area for that platform. Know that there are regulations in place if you are seeking employment through a social media platform. You cannot disclose nonpublic information or accept compensation for statements made over social media that relate to your official responsibilities. Finally, you may fundraise for nonprofit charitable organizations, but there are regulations against soliciting funds from coworkers. Again, please see the official document (located in the Resources tab) for specific details regarding any of these items, as this summary is intended only to make you aware of what is covered and cannot be used to justify any actions.

#### **Legal Documents**

- See Resources for the following relevant documents:
  - OGE Advisory on Social Media: LA-15-03
  - NOAA Social Media Handbook
  - DOC Policy on Approval of Social Media
  - DOC Social Media Application Tracking System
  - DOC Ethics Guidance
  - DOC Department Administrative Order on Public Communications
  - Privacy Impact Assessment for Social Media
  - NWS Dissemination Directive 10-17
  - Facebook Posting Policy
  - DOC-Approved Services
  - NWS Instruction 10-1722 for Instant Messaging

In addition to the standards of conduct summarized on the previous slide, these additional documents related to social media are provided in the Resources tab and you are encouraged to review these documents. These are documents that have been published by the Department of Commerce, NOAA, and the National Weather Service.

#### **Thanks Reviewers!**

- Emerging Tech Team
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- Eric Heden BGM
- Albert Pietrycha EAX

- Daniel Hawblitzel EAX
- Matthew Dux FSD
- WFO Reno
- WFO Monterey
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Finally, I would like to thank the people and organizations here for helping review and provide comments that helped shape and refine these last four modules.